A method and apparatus for providing microcurrent stimulation (MSC) therapy. In accordance with the present invention, it has been determined that the application of microcurrent signals at particular frequencies to the eye for particular periods of time stabilizes and even improves conditions of macular degeneration and other ocular diseases. Experimental data from clinical trials shows that results of persons who underwent therapy are at least better than placebo, and that the therapy is safe and efficacious. In fact, experimental data from clinical trials showed that approximately 98% of the patients who underwent the MCS therapy of the invention experienced either stabilization or improvement of macular degeneration within one year of starting therapy. Of this percentage, approximately 65% of the patients subjected to the MCS therapy experienced improved vision, while approximately 32% experienced stabilization of macular degeneration (i.e., no further loss of vision).